Reg. No.														

Question Paper Code	13004

M.E. / M.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2024
Third Semester

M.E. - Computer Science and Engineering (With Specialization in Networks)
20PCNEL301 - NETWORK MANAGEMENT
Regulations – 2020

Duration: 3 Hours　　　　　　　　　　　　　　　　　　　　Max. Marks: 100

PART - A (10 × 2 = 20 Marks)
Answer ALL Questions

		Marks	K – Level	CO
1.	Define OSI Network management model.	2	K1	CO1
2.	What is the purpose of the Information model in network management?	2	K1	CO1
3.	What is Abstract Syntax Notation and why is it used in network management?	2	K2	CO2
4.	Differentiate between CMIP and CMIS in network management.	2	K2	CO2
5.	List the functions of SNMP in ATM management.	2	K1	CO3
6.	What is the purpose of the SNMP Management Information Base (MIB)?	2	K1	CO4
7.	What is Policy-Based Management in network management?	2	K1	CO5
8.	Describe the role of Web-based management in modern network management.	2	K1	CO5
9.	Compare Web interface and Web management.	2	K2	CO6
10.	Write about the impact of network management on network security.	2	K2	CO6

PART - B (5 × 13 = 65 Marks)
Answer ALL Questions

11.	a)	Describe how network operations are used in various management applications.	13	K2	CO1
		OR			
	b)	Discuss in Detail about the SNMP Network Management Architecture.	13	K2	CO1
12.	a)	Explain the concept of Virtual Paths (VPs) and Virtual Channels (VCs) in ATM networks.	13	K2	CO2
		OR			
	b)	Describe the role of the Simple Network Management Protocol (SNMP) and Integrated Local Management Interface (ILMI) in ATM Network Management.	13	K2	CO2
13.	a)	Analyze the SNMPv2 system architecture, focusing on its functional advantages over SNMPv1.	13	K4	CO3

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

b) Analyze the security implications of using SNMP in network management.   *13*   *K4*   *CO3*

14. a) Explain the significance of Network Statistics Measurement Systems in modern enterprise management.   *13*   *K2*   *CO5*

OR

b) Enlighten the role of network management tools in network administration.   *13*   *K2*   *CO5*

15. a) Illustrate how a web-based network management system can be embedded into a storage area network (SAN) environment.   *13*   *K3*   *CO6*

OR

b) Design a Web-based interface for a network management system, considering the needs of different user roles and security requirements.   *13*   *K3*   *CO6*

PART - C (1 × 15 = 15 Marks)

16. a) Briefly explain the concept of Event Correlation Techniques 168 Security Management Of SNMPV1 Protocol.   *15*   *K2*   *CO4*

OR

b) Explain about ISO defined Network Management functions with a neat block diagram.   *15*   *K2*   *CO4*